

Article 19 -
Amended Claims

AMENDED CLAIMS [received by the International Bureau on 12 August 2005 (12.08.2005); original claims 1-21 replaced by new claims 22-31]

22. A carbon flexible heating structure formed by molding a conductive composition obtained by mixing liquid silicon rubber and carbon black at a weight rate in a range of 100:1~15 into a particular shape and curing a mixture,

wherein the carbon flexible heating structure is a reinforcing material of a conductive composition filled with short staples.

23. The carbon flexible heating structure of claim 22, wherein the diameter of the short staple is 1 through 50 µm and the short staple is one of a glass fiber, a carbon fiber, and a graphite fiber.

24. A carbon flexible heating structure formed by molding a conductive composition obtained by mixing liquid silicon rubber and carbon black at a weight rate in a range of 100:1~15 into a particular shape and curing a mixture,

wherein the carbon flexible heating structure has the shape of a mesh, and

wherein the mesh is a fabric made of a woof and a warp and has port portions formed longer than the woof or the warp of the fabric, and the port portions are formed of a conductive metal wire having superior conductivity.

25. The carbon flexible heating structure of claim 24, wherein the port portions are tin-plated copper wires or silver wires.

26. A carbon flexible heating structure formed by molding a conductive composition obtained by mixing liquid silicon

rubber and carbon black at a weight rate in a range of 100:1~15 into a particular shape and curing a mixture,

wherein insulation coating formed of an insulating mixture obtained by mixing liquid silicon rubber and a diluent and agitating a mixture is provided on a surface of the carbon flexible heating structure.

27. A carbon flexible heating structure formed by molding a conductive composition obtained by mixing liquid silicon rubber and graphite powder at a weight rate in a range of 100:10-150 into a particular shape and curing a mixture,

wherein the carbon flexible heating structure is a reinforcing material of a conductive composition filled with short staples.

28. The carbon flexible heating structure of claim 27, wherein the diameter of the short staple is 1 through 50 μm and the short staple is one of a glass fiber, a carbon fiber, and a graphite fiber.

29. A carbon flexible heating structure formed by molding a conductive composition obtained by mixing liquid silicon rubber and graphite powder at a weight rate in a range of 100:10-150 into a particular shape and curing a mixture,

wherein the carbon flexible heating structure has the shape of a mesh, and

wherein the mesh is a fabric made of a woof and a warp and has port portions formed longer than the woof or the warp of the fabric, and the port portions are formed of a conductive metal wire having superior conductivity.

30. The carbon flexible heating structure of claim 29, wherein the port portions are tin-plated copper wires or silver wires.

31. A carbon flexible heating structure formed by molding a conductive composition obtained by mixing liquid silicon rubber and graphite powder at a weight rate in a range of 100:10-150 into a particular shape and curing a mixture,

wherein insulation coating formed of an insulating mixture obtained by mixing liquid silicon rubber and a diluent and agitating a mixture is provided on a surface of the carbon flexible heating structure.